# TODD R. RISLEY: A MAN WHO DIDN'T LIKE COUNTING ANGELS

## MICHAEL F. CATALDO

KENNEDY KRIEGER INSTITUTE
JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

He dwelt no place, and gathered to himself neither wealth nor followers. Warm and eager was his spirit opposing the fire that devours and wastes with the fire that kindles and succors; but only those that knew him well glimpsed the flame that was within. Merry he could be, and kindly to the young and simple; and yet quick at times to sharp speech and the rebuking of folly; and thus far and wide he was beloved among all those that were not themselves proud. Mostly, he would at times work wonders among them, loving especially the beauty of the fire; and yet such marvels he wrought mostly for mirth and delight, and desired not that any should hold him in awe or take his counsels out of fear. (A very liberal adaptation describing Gandalf in J. R. R. Tolkien's Lord of the Rings)

Great enterprises often have common features: discipline, innovation, timing, leadership, persistence—in short, great enterprises have "the right stuff," and that especially includes the right people. For example, consider the influence of Warren Buffet on Berkshire Hathaway; or Steve Jobs on Apple Computer; or Golda Meir on Israel; or Nelson Mandela on South Africa; or Baer, Wolf, and Risley on applied behavior analysis.

A select group of individuals can come together with a common purpose and apply their unique skills to help ensure a successful outcome. That indeed was true for applied behavior analysis in terms of Don Baer, Mont Wolf, and Todd Risley. Since the 1960s, they gave us their talents for the better part of their entire lives so as to fulfill the purposes detailed in their article in the first issue of *JABA* entitled "Some Current Dimensions of Applied Behavior Analysis." Sadly, over the last 5 years, first Don,

then Mont, and now Todd have left us, and thus in a sense closed a chapter on the formative phase of applied behavior analysis. To appreciate Todd's contribution to our field, in my opinion, is to view it in the context of his two former professors (yes, professors) and colleagues, Don Baer and Mont Wolf. But, let's save that for last.

## **MENTOR**

A study was once conducted using factor analysis techniques to try to ascertain the variables that contribute to winning a Nobel Prize. Of the many variables considered, only one showed a positive correlation: having worked with someone who had also won a Nobel Prize. To be a student of Todd's was to learn how he did what he did, which he had no hesitation to impart to anyone who wished to sign on for the "ride."

Being a student of Todd's was (to use a phrase from the 1970s) a blast. It was an adrenaline rush. To be with Todd was like being with Merlin the Magician, the wise Gandalf depicted in *Lord of the Rings*, and one of your best friends from high school when you were a freshman and he was a senior.

Todd had a way of taking a problem or a difficult situation and turning it into a miraculous adventure. His solutions were like magic, and more often than not, you got to be a sorcerer's apprentice, not just a passive observer. This magic applied to *everything*, not just collecting data and conducting research. Here are some examples.

"Let's do research on the impact of day care on child development and behavior. But we really should do this in a naturally occurring environment, so let's figure out how we can do our research in an operating day-care center." But it is difficult to get into community daycare centers to do research. Not a problem for Todd, we'll just start our own day-care center. But with what? No problem for Todd, we'll talk this particular research agency into giving us funding. So we get on a plane, go to St. Louis, and have a 2-day meeting, which results in being invited to submit a proposal. Todd is busy. "Mike, why don't you write the proposal. I'm sure you can do it." A few months later, we have the funding.

But now we need a location for our day-care center. This means finding a suitable location, obtaining a lease, arranging for renovations, furnishings, and staffing. "Mike, I have to go to a meeting in Florida for a week. While I'm gone, why don't you see if you can find a place for the center, and if you do, go ahead and work out the lease and all the other details." Like magic, a graduate student is transformed into an effective trusted colleague with major responsibilities, challenges, and the trust of Merlin that he will not fail. Indeed, upon Todd's return, we had the location, the lease worked out, and most of the other details.

Of course, this is all difficult to do within a state university structure. No problem for Todd: "We'll talk to the Dean and get permission to start our own nonprofit corporation to handle the messy legal and pesky financial matters that the university doesn't want to deal with. And, oh, by the way Mike, John is the best nonprofit attorney in Kansas. Why don't you give him a call and get the corporation set up, open a bank account, and while you're doing all that, I guess you should be one of the corporate officers." With the wave of a wand, a graduate student gets to incorporate the Center for Applied Behavior Analysis.

Such was the magic that Todd made. He bestowed unexpected and amazing responsibilities on us that expanded our skills, instilled confidence, and taught us courage.

Todd's approach to research was to take behavior analysis to a whole new level. His focus was not just on one or a small collection of behaviors, nor just the consequences that could influence behavior, nor just those stimuli related to the occurrence of consequences. Rather, he wanted to understand the environmental context in which behaviors of social importance occurred. He wanted to know the environmental variables that existed in this context and that influenced these behaviors; he wanted to develop a technology for analyzing these variables and understand how to change them so as to change behavior. In short, the profound nature of his approach was the premise that whole systems or enterprises in society were amenable to the same analytical approach we had come to use for individual organisms. And, when one conducted such an analysis correctly, the findings could be used to change those entities and the behavior of people in them for the better. Risley's approach to ecological behavior analysis had the advantages of being applied, important, and immediately both generalizable and scalable. This was more than a cataloging and analysis of reinforcers. He wanted to know how the physical environment influenced behavior, how a sequence of activities influenced behavior, how the arrangement of materials in a room influenced behavior, and so on, and how such variables could be used to make meaningful differences.

For example, how does one get toddlers to learn to eat with a spoon? How about sitting next to the child and differentially reinforcing successive approximations to proper spoon use? Not Todd's approach. His was to take an existing behavior, finger feeding, and slowly change the texture and inconsistency of the food so that it could no longer be eaten with fingers. That set the occasion for the child to seek help, and thus for the day-care worker to point out to the child how to use the spoon. How does one teach a toddler to ask for things—to mand? Todd's approach was to place desired toys on shelves so that the child could see them but not reach them. This set the occasion for incidental

teaching. At first, if the child simply looked at the toy, he or she would be given it. But soon the child would need to point at the toy. And soon after that the child would have to make some sort of a verbal request. And over the course of days, the verbal requests would improve through the interaction between the day-care staff member and the child, every time the child saw a toy he or she wanted. This was essentially an analysis of how these environments operated every day, and how important behaviors could be promoted and improved, or not. As one moved through this analysis and intervention approach, the end product would have generalization and immediate application already built in.

For many of us, this was Skinnerian psychology on steroids, Behavior Analysis 6.0, way beyond freedom and dignity. This was the wise Gandalf showing a new way to understand behavior in the naturally occurring societal systems and environments.

This notion of trying to understand how behavior occurred and developed in everyday environments, and how to use this knowledge to improve environments and behavior, was an enduring passion of Todd's, and of many of us who had the privilege to work with him. This notion was applied to designing day-care environments for infants so that the physical characteristics promoted motor development, ensured safety and proper care by staff, and the like. This notion was also applied to understanding and developing model programs for preschools, afterschool activity programs, reducing crime and delinquency and promoting citizenship in inner-city ghetto areas, language development, residential and community settings for persons with developmental disabilities, etc.—and even how to promote and influence a scientific field throughout journals and professional organizations.

This notion of Todd's about how to make meaningful differences he frequently compared to other types of approaches typical of behavior analysis then and now. During his tenure as JABA editor, he would frequently survey a pile of recently received manuscripts on his desk, pointing out how they all represented systematic replications of well-known principles that merely told us what we already knew using laboratory or other atypical settings. For Todd, these were studies about "how many angels can dance on the head of a pin." He would have no part of them. Of course, if the methods were precise and appropriate, and the manuscripts properly prepared with all the essential elements, he would make sure they were published in JABA. But that was not the type of research he wanted to do, nor the type of research he modeled, nor the type of research that many of us pursued when we went out on our own.

Todd's approach as a mentor was in some ways very similar to his analytical approach for understanding behavior and environments, and the natural way in which they interacted. His mentor style was very much like incidental teaching. Most of our "instruction" was (a) by doing, and (b) by long, sometimes very long, discourses and conversations about how one could understand a particular environment, influence behavior in naturally occurring settings, and make a difference. This second approach was not a didactic exercise. This was watching and participating with Todd in the creation of an analysis. He could go on for hours and sometimes days. It was the way we eventually learned how to do what Todd did. It was fascinating, exhilarating, and often allconsuming; and always carried out as if each of us was his closest colleague.

This usually occurred in quasi-social situations. In the day-care setting designed for our research, the office also had to have a lounge area so we could get together for coffee, lunch, or late in the day and evening for other types of refreshments—all of which set the occasion for Todd and us to engage in these long discourses that were his approach to teaching.

Here's one example of how engrossing this could be. Frequently, when Todd and I would

work late, we would go out to dinner together, work through dinner, and return to the office to work late into the evening. On this particular occasion, we went to a local restaurant in Lawrence that tried to imitate fine dining. I emphasize, "tried." One of their signature dishes was steak Diane, which was to be prepared tableside over an open flame by first sautéing a filet in oil and butter, and when almost done, flaming the dish by pouring in cognac. Todd and I sat on one side of the dining room, and Todd was engrossed in one of his fascinating but lengthy analyses. On the other side of the room, a waiter began to prepare steak Diane. Important to this tale is to tell you that, as was the style of the day, the waiter's hair was styled by teasing it into tiny curls that increased its volume to three or four inches above his head. What happened that evening was the hot oil and butter splattered onto the top of his hair, and when he ignited the dish with cognac, either the heat or spark also ignited the top of his hair. So, here I am sitting intently listening to Todd, who is engrossed in a brilliant but ever expanding analysis, while a waiter across the room is on fire. Todd never noticed. Similar to an Abbott and Costello movie, I tried to point out to him the burning waiter, with no success. This all ended when a slightly inebriated customer stumbled across the room and doused the waiter with a glass of water. Finally, at this point Todd looked over at the dripping, humiliated but otherwise unhurt waiter, never pausing in his analysis.

At the risk of leaving out many deserving examples, consider the impact that Todd had as a mentor. One of Todd's "students," Ed Christophersen, analyzed the pediatric medical profession and became perhaps the most well-known and respected psychologist by that group, winning most of that profession's major awards. Other examples are Lynn McClannahan and Patricia Krantz, who analyzed the problems of children with autism and pervasive developmental disorder, and by using many of the types of techniques from Todd's and their

analyses, such as incidental teaching, created arguably the best, most successful, and enduring program to mitigate the effects of autism, the Princeton Child Development Center. This program has not only has been replicated many times by their trainees but is designed to operate successfully in the context of a community- and parent-run board. Any successes that I have had at the Kennedy Krieger Institute and the Johns Hopkins School of Medicine occurred using Todd's insights into complex environments and how to succeed in them.

## ALASKA

In the middle of Todd's life and career, he chose to leave Lawrence, Kansas, and his professorial position at Kansas University, to go to Alaska. Now for a while, we were not sure he was really gone. He kept assuring us, "I'll be back!"

I remember quite clearly the conversation he and I had shortly before I left Kansas, which was some time before he left for Alaska. He had been telling me about Alaska, and how frequently he thought about returning there. The timing was becoming a particularly important issue because his father was growing older and might soon need assistance. I pointed out to Todd that many people work until they are old, and then retire hoping to fulfill their dreams, which by then, is difficult, because they no longer have the energy and vitality to do all the things they dreamed of, and because when one gets older it's important to be needed and not retired. Perhaps it would be better to "retire" for a period of time when one was still young enough to enjoy it. Thereafter, one could always just go back to work. Together we analyzed this thought a bit, and as was Todd's style, he didn't just talk about it, he did it.

He went off to Alaska and spent precious years with his father. He then stayed in Alaska where he had his own mountain, the wilderness that he loved so much, a truck, a motorcycle, and even a bulldozer. What more could any man want?

Todd had always wanted to analyze a very large system and see if he could redesign it so that it would make a meaningful difference on a very large scale. This was a most ambitious and important desire of his. So, he helped pass legislation that levied a tax on every barrel of oil that left Alaska. This money was to be set aside to enhance programs for persons with developmental disabilities. He then helped a particular candidate become governor and as a consequence, the new governor appointed Todd as Commissioner of Mental Health and Mental Retardation for the state of Alaska. And, of course, by now there was a large budget from oil revenue set aside for Todd to use.

He also met and married his wife Cheryl.

Working for over three decades at Hopkins Hospital provides one a sharp focus on the fragility of life. One learns that it is not so much how long a person lives, but how well. As best I can tell, Todd was able to realize his professional and personal dreams—that we could all be so fortunate.

## **LEGACY**

Don Baer was the field's "word merchant," our cartographer. Using elegant prose, he would show us the way. His great skill and contribution were his flawless logic and his seminal research that came to define both applied behavioral processes and development.

Mont Wolf, simply put, showed us how to take an important problem, juvenile delinquency, and solve it. The reductions in recidivism by youth in the Achievement Place program remain unprecedented.

Together, Don and Mont for several decades embodied that described in "Some Current Dimensions of Applied Behavior Analysis." Todd, I mean to suggest here, gave us a glimpse at a next dimension. That is, he gave us examples that were the answers to the lament now increasingly expressed: "Since we can have such a great impact in society, why is applied behavior

analysis not more appreciated?" But how can we show our great potential by research that is akin to counting how many angels can dance on the head of a pin? Our research, our analyses, and our impact must be at a level of systems and entities in society, and on a scale of considerable magnitude. True to Todd's style, he just didn't talk about this, he did it—over and over.

A fascinating study was published a number of years ago. The participants were bottle-nosed dolphins, and the purpose was to explore how creativity might be taught. These mammals have among their naturally occurring behaviors the ability to jump out of the water. The rate of this behavior can, of course, be increased. Also, when they jump out of the water they twist and turn, all of which can be defined and therefore coded and therefore counted. The study proceeded by first increasing jumping behavior by differential reinforcement, and then by switching the contingency, such that reinforcement occurred only when a novel or creative jump occurred—that is, a jump that had elements never noted before.

Like the dolphins in the study, for Todd doing something new and different each and every time was most reinforcing. He loved to reach new audiences with his work. "Publish your studies in journals read by those who need your solutions," he would say, "Not just in *JABA*." Was this heresy or just the wisdom of Gandalf?

Todd showed us how powerful our applied science could be, and how to take it to the next level. That this can be learned and applied to new areas has been shown by some of those he mentored. He clearly did not want us to have as our next dimension for the field yet more studies on "angel counting." Todd, I believe, wanted us to have courage, and do bold, new, important things with our science. He was never more pleased than when one of us succeeded at this.

But alas, now he is gone too.

What will we do next...?